Test of Reasoning

Solved Paper of SSC Combined (Graduate Level) Preliminary Examination held on 24th March, 2002

Directions: (Question Nos. 1 to 8) Select the related letters/word/number/figure from the given alternatives.

1. Botany : Plants : : Entomology : ?
   (A) Birds (B) Plants
   (C) Insects (D) Snakes

2. Parliament : Great Britain : : Congress : ?
   (A) Japan (B) India
   (C) USA (D) Netherlands

   (A) Pool (B) Rain
   (C) Stream (D) Canal

4. AZBY : DWEV : : HSIR : ?
   (A) JQKO (B) KPOL
   (C) KPLO (D) KOLP

   (A) BGL (B) BLQ
   (C) BGQ (D) BLV

   (A) 240 (B) 222
   (C) 216 (D) 210

7. 48 : 122 : : 168 : ?
   (A) 292 (B) 290
   (C) 225 (D) 215

Directions: (Question Nos. 9 to 14) Select the one which is different from the other three responses.

9. (A) Sweet
   (B) Bitter
   (C) Salty
   (D) Insipid

10. (A) Lion
    (B) Goat
    (C) Tortoise

11. (A) Square
    (B) Circle
    (C) Rectangle
    (D) Triangle

12. (A) AJKL
    (B) IBCD
    (C) ORQP
    (D) UFGH

13. (A) DEB
    (B) RTP
    (C) HIF
    (D) NOL

14.

(D) Centaur

15. Find out the set of numbers amongst the four sets of numbers given in the alternatives which is most like the set given in the question.

   Given set (3, 18, 36)
   (A) (2, 10, 16)
   (B) (12, 72, 96)
   (C) (4, 24, 48)
   (D) (6, 42, 48)

Directions: (Question Nos. 16 and 17) A series of figures are given which can be grouped into classes. Select the group into which the figures can be classified from the given responses.

16. (D)
17. \( \rightarrow \) \n\n\[ \begin{array}{cccc} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 7 & 8 & 9 \end{array} \] 

(A) 1, 5, 6; 2, 3, 4; 7, 8, 9 
(B) 1, 2, 4; 3, 5, 8; 6, 7, 9 
(C) 5, 6, 7; 1, 2, 4; 3, 8, 9 
(D) 1, 2, 4; 3, 5, 7; 6, 8, 9 

18. Arrange the following words according to the Dictionary: 

(A) 5, 4, 3, 1, 2 
(B) 4, 3, 5, 2, 1 
(C) 3, 4, 5, 1, 2 
(D) 4, 3, 2, 5, 1 

19. Which one of the given responses would be a meaningful order of the following? 
1. Seed, 2. Flower, 3. Soil 
4. Plant, 5. Fruit 

(A) 4, 2, 5, 1, 3 
(B) 2, 5, 4, 1, 3 
(C) 3, 2, 1, 5, 4 
(D) 3, 1, 4, 2, 5 

20. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it? 
H—IJH—IJHHI—HH—JH 

(A) IHJI 
(B) HIHI 
(C) IHJJ 
(D) HJHJ 

Directions: (Question Nos. 21 to 23) Find the missing number/letters in the series. 

21. DHL, PTX, BFJ, ? 

(A) NRV 
(B) RVZ 
(C) CGK 
(D) KOS 

22. 22, 24, 28, ?, 52, 84 

(A) 46 
(B) 36 
(C) 38 
(D) 42 

23. 3, 7, 23, 95, ? 

(A) 575 
(B) 479 
(C) 128 
(D) 62 

Directions: (Question Nos. 24 to 27) Find the missing figure in the series from the given answer figures.
28. Select the related figure from the answer figures.

29. 11 × 12 × 13 = 234, 24 × 23 × 35 = 658, 31 × 43 × 54 = ?
   (A) 497 (B) 974 (C) 749 (D) 479

30. 16 (210) 14 14 (156) 12 12 (?) 10
   (A) 110 (B) 100 (C) 120 (D) 90

31. A is the sister of B, B is the brother of C, C is the son of D. How is D related to A?
   (A) Mother (B) Daughter (C) Son (D) Uncle

32. Heavier coins are costlier. Ram’s coin is heavier than Mohan’s and costlier than Ramesh’s. Naresh’s coin is costlier than Ram’s but lighter than Yogesh’s. Ramesh’s coin is costlier than Mohan’s. So who is the owner of the costliest coin?
   (A) Ram (B) Ramesh (C) Yogesh (D) Naresh

33. A word given in Capital Letters is followed by four answer words. Out of these only one cannot be formed using the letters of the given word. Find out that word:
   ADMINISTRATION
   (A) Mind (B) Ration (C) Minister (D) Station

34. If A = 2, M = 26 and Z = 52, then BET = ?
   (A) 44 (B) 54 (C) 64 (D) 72

35. Sohan started from point X and travelled forward 8 km up to point Y, then turned towards right and travelled 5 km up to point Z, then turned right and travelled 7 km up to point A and then turned towards right and travelled 5 km up to B. What is the distance between points B and X?
   (A) 1 km (B) 2 km (C) 3 km (D) 4 km

36. Which answer figure will complete the question figure?

37. Two positions of a dice are shown below:

   Directions: (Question Nos. 38 and 39) A statement is given followed by four conclusions A, B, C, D. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You are to decide which of the given conclusions can definitely be drawn from the
38. Fertilizer consumption in India in 1984-85 was 8.21 MT. By 1990 it was 13.75 MT and by 2000 it is expected to reach 16 MT. What is your conclusion?
   (A) Fertilizer consumption is steady
   (B) There is a steady decrease in fertilizer consumption
   (C) Fertilizer consumption does not show any trend
   (D) There is a steady increase of fertilizer consumption

39. All guilty politicians were arrested. Tom and Gopal were among those arrested.
   (A) Tom and Gopal were guilty.
   (B) Tom and Gopal were not politicians.
   (C) All arrested people are politicians.
   (D) All politicians are guilty.

Directions: (Question Nos. 40 and 41) Find the missing number from the given responses.

40.  
   \[
   \begin{array}{ccc}
   56 & 22 & 46 \\
   41 & 10 & 34 \\
   15 & 8 & ?
   \end{array}
   \]
   (A) 25 (B) 52 (C) 12 (D) 48

41.  
   \[
   \begin{array}{ccc}
   9 & 11 & 13 \\
   3 & 4 & 7 \\
   3 & 4 & 5
   \end{array}
   \]
   (A) 169 (B) 143 (C) 455 (D) 545

42. From the given answer figures, select the one which is hidden/embedded, in the question figure.

   Question Figure :
   \[
   \begin{array}{ccc}
   A & B & C \\
   & D & \\
   \end{array}
   \]

   Answer Figures :
   \[
   \begin{array}{ccc}
   (A) & (B) & (C) \\
   & & \\
   \end{array}
   \]

43. Find out the pair of numbers that does not belong to the group for lack of common property.
   (A) 34-43
   (B) 62-71
   (C) 55-62
   (D) 83-92

44. Who are educated males but who do not live in urban area?
   (A) 4 (B) 11 (C) 5 (D) 9

45. If ‘+’ stands for Multiplication, ‘x’ stands for Division, ‘-’ stands for Addition and ‘÷’ stands for Subtraction, what would the following equation stand for?
   \[20 - 8 \times 4 \div 3 + 2 = ?\]
   (A) 41 (B) 19 (C) 16 (D) 18

46. Which of the following diagrams represents Mammals, Cows and Crows?

47. In a particular way of coding the word CENTRAL is coded as ABCDEFG and PLANETARIUM as HGFCBDFEIJK. With the same coding how can we express the word LANTERN?
   (A) GFCDFEG (B) GFCDBEC (C) GFCDEFG (D) GFCDBEB

48. Find the odd one out:
   441, 484, 529, 566, 625
   (A) 484 (B) 529 (C) 625 (D) 566

49. A paper is folded as shown in the given figures and a cut is made. When opened how will it appear? Choose from the given responses.

   Answer Figures :
   \[
   \begin{array}{ccc}
   (A) & (B) & (C) \\
   & & \\
   \end{array}
   \]

50. The question figure given below may be turned in any
direction but not be picked up and turned over. Find out the correct figure which could be formed by rotating the question figure.

Answer Figures:

(A)  (B)  (C)  (D)

ANSWERS AND EXPLANATIONS

1. (C) The science is related to the study of this subject.
2. (C)  3. (A)  4. (C)  5. (D)
6. (B) It is $4^3 + 4 : 5^3 + 5$.
   The next set would be $6^3 + 6 : 7^3 + 7$, i.e. $222 : 350$.
7. (B) The given set is $7^2 - 1 : 11^2 + 1 : 13^2 - 1 : 17^2 + 1$ i.e. $169 - 1 : 289 + 1$.
8. (C) The figure faces opposite side and lines are doubled.
9. (D) All the others are different type of tastes.
10. (D) It is Greek mythological creature, others are real ones.
11. (B) All the others are formed with straight lines.
12. (C)
13. (B)
14. (C)
15. (C) Multiply the first number with six to get the second number. The third one is double of the second one.
16. (B)
17. (B) The sets have three-line, four-line and five-line figures.
18. (B)
19. (D)
20. (A) The series is HIJ/HIJ/HIJH.
21. (A) The letters in the sets as well as the sets have gap of three letters.
22. (B) Go on adding 2, 4, 8, 16, 32 to numbers respectively.
23. (B) The series is $3 \times 2 + 1 = 7; 7 \times 3 + 2 = 23;
   23 \times 4 + 3 = 95; 95 \times 5 + 4 = 479$.
24. (A) The figure rotates clockwise at an angle of 90°.
25. (B) Circle goes to opposite corners rotating clockwise and the smaller one from corner to corner clockwise too, but rotates anti-clockwise.
26. (B)
27. (B)
28. (A) The next figure has two sides less, the inner figure remains the same but the dot goes to the other end.
29. (D) Add the digits of first, second and third numbers to get the three numbers of the answer $3 + 1; 4 + 3;
   5 + 4 = 479$.
30. (A) $16 \times 14 - 14 = 210; 14 \times 12 - 12 = 156;
   12 \times 10 - 10 = 110$.
31. (C)
   A (daughter)  B (son)  C (son)
32. (C) Heavy/Costly to Light/Cheap. Yogesh, Naresh, Ram, Ramesh and Mohan.
33. (C) It has an ‘E’
34. (B) 4 + 10 + 40 = 54.
35. (A) 36. (D)
37. (D) 38. (D)
39. (A)
40. (A) $(34 + 11) - (14 + 6) = 25$.
41. (C) $13 \times 7 \times 5 = 455$.
42. (A)
43. (C) All the others have a difference of 9.
44. (B) 45. (C)
46. (B) 47. (B)
48. (D) The series is $21^2; 22^2; 23^2; 24^2; 25^2$, hence the number ought to be 576.
49. (D) 50. (D)